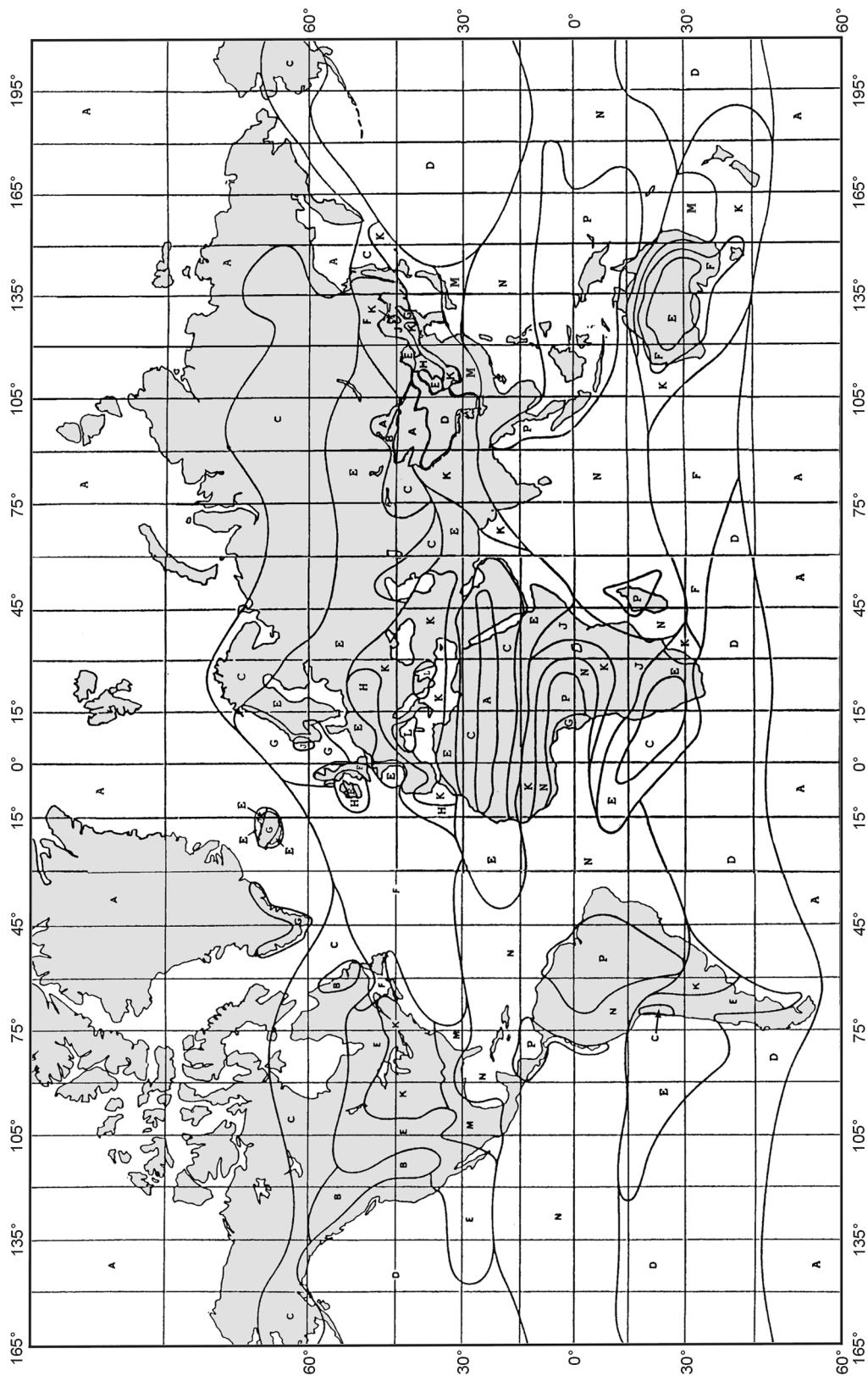


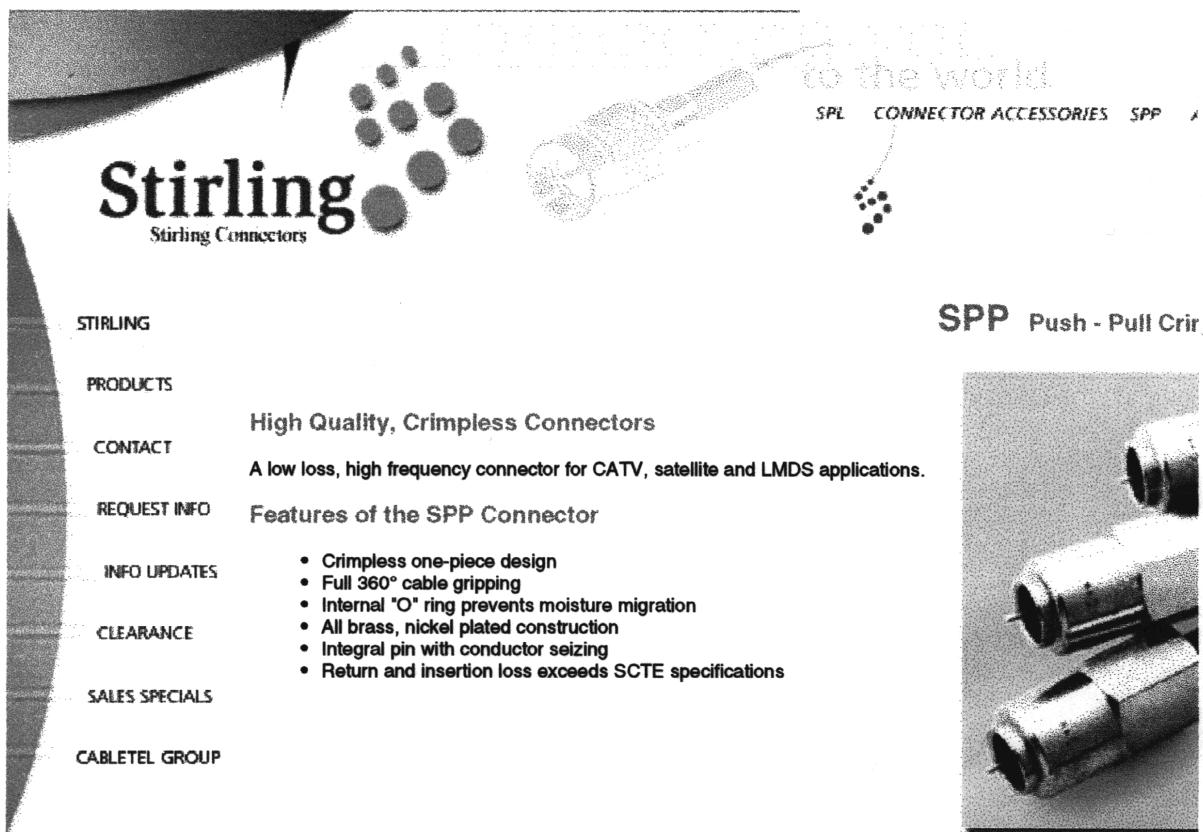
## Appendix 2 – Climatic areas world map



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## Appendix 3 – Mounting coaxial connectors for 5916 CommScope



The screenshot shows the Stirling Connectors website. The header features the Stirling logo (a cluster of circles) and the tagline "CONNECTORS to the world." Below the header, a banner for "SPL CONNECTOR ACCESSORIES SPP" is visible. The main content area includes a "SPP Push - Pull Crimpless Connector" image, a "High Quality, Crimpless Connectors" section, and a "Features of the SPP Connector" list.

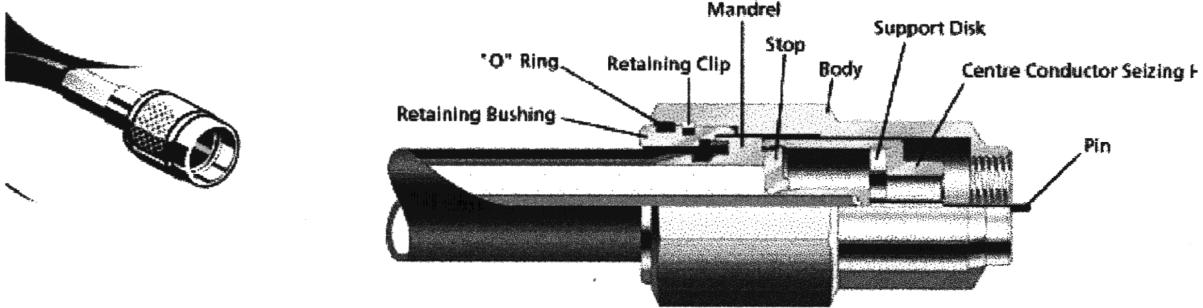
**SPP Push - Pull Crimpless Connector**

**High Quality, Crimpless Connectors**

A low loss, high frequency connector for CATV, satellite and LMDS applications.

**Features of the SPP Connector**

- Crimpless one-piece design
- Full 360° cable gripping
- Internal "O" ring prevents moisture migration
- All brass, nickel plated construction
- Integral pin with conductor seizing
- Return and insertion loss exceeds SCTE specifications



Part No.	Cable Size	Max. Braid Coverage	Dielectric O.D. (Nom)
SPP-7	RG-7	60%	.225"
SPP-7-Q	RG-7	Quad-Shield 60%	.225"
SPP-11	RG-11	Quad-Shield 60%	.280"
SPP-11-TQ	RG-11	N/A	.280"

# RG-11SATELLITE

## 75 Ohm Coaxial Cable

### CATALOG # 5916

### NON-PLENUM: CM(UL)C(UL)

 **CommScope**  
 1375 Lenoir-Rhyne Blvd.  
 PO Box 1729  
 Hickory, NC 28603-1729  
 (800) 982-1708  
 (828) 324-2200  
 Fax: (828) 328-3400  
 Int'l Fax: (828) 323-4989  
 www.commscope.com

1 of 1

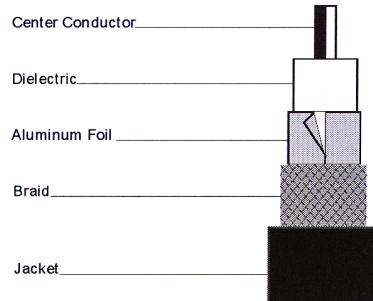
#### CONSTRUCTION:

**CENTER CONDUCTOR:**  
 14 AWG COPPER/STEEL  
 NOM DIA: 0.0641"

**DIELECTRIC:**  
 FOAM POLYETHYLENE  
 DIA. OVER DIELECTRIC: 0.280" NOM.

**SHIELD:**  
 FOIL: 0.003" ALUMINUM TAPE  
 BRAID: 34 AWG ALUMINUM  
 60% COVERAGE  
 NOM. DIA. 0.311"

**JACKET:** FR-PVC  
 DIA. OVER JACKET: 0.405" +/- 0.010"  
 NOM. JKT. THICKNESS: 0.045"  
 MIN. SPOT: 0.036"



#### ELECTRICAL PROPERTIES:

SPARKER TEST:	2000 VAC
DIELECTRIC STRENGTH:	CONDUCTOR TO SHIELD: 4000 VDC
CAPACITANCE:	16.2 PF/FT. NOM.
IMPEDANCE:	75.0 +/- 3.0 OHMS
VELOCITY OF PROPAGATION:	82.0% NOM.
DCR: CONDUCTOR:	13.0 OHMS/1000 FT. NOM.
SRL:	15 dB (950 THRU 2200 MHz) 100% Swept Tested

#### MECHANICAL PROPERTIES:

##### MINIMUM BEND RADIUS:

Loaded: 20 times cable OD

Unloaded: 10 times cable OD

##### CABLE TEMP. RATING:

Temp: 75 C

##### ATTENUATION:

dB/100 FT. (NOM)	@ Frequency MHz
.22 dB	1 MHz
.49 dB	10 MHz
.98 dB	50 MHz
1.29 dB	100 MHz
1.84 dB	200 MHz
2.68 dB	400 MHz
3.67 dB	700 MHz
4.25 dB	900 MHz
4.52 dB	1000 MHz
4.91 dB	1200 MHz
5.39 dB	1450 MHz
6.01 dB	1800 MHz
6.64 dB	2200 MHz

Drawing not to scale.  
 Specifications subject to change.  
 Revision: 11/24/99

## A.3.1 – Installing Stirling connectors

This section describes how to install a Stirling connector on CommScope RG-type cable.

### A.3.1.1 – To install a Stirling connector

To prevent damage to the center pin of the connector, keep the cap on the connector during installation unless specified otherwise.

The following tools and hardware are required:

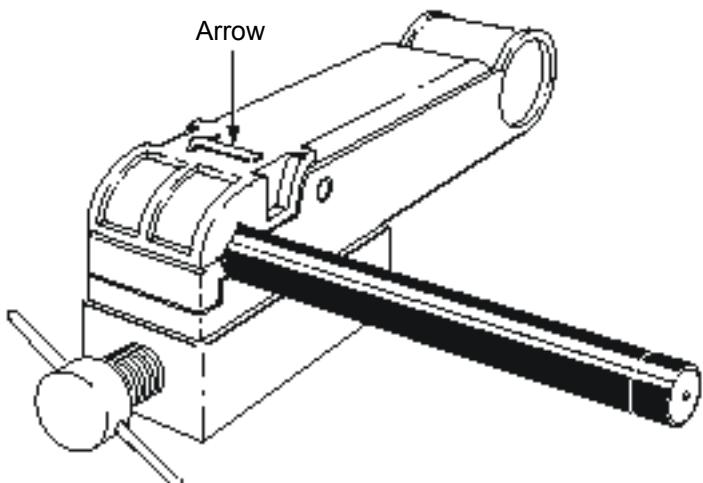
- Stirling cable and connectors:
  - SPP-6-0 connectors for RG-6/U cable
  - SPP-59-0 connectors for RG-59/U cable
  - SPP-11-newbridge connectors for 5916 cable
- Stirling stripper/activator tool
  - SCSA-596 tool for RG-6/U or RG-59/U cable
  - SCSA-11 tool for 5916 cable

1. Trim one end of the cable using a circular wire cutter. Do not use a side cutter because it will deform the cable.



**Caution - Deforming the cable can result in a poor connection that can affect service**

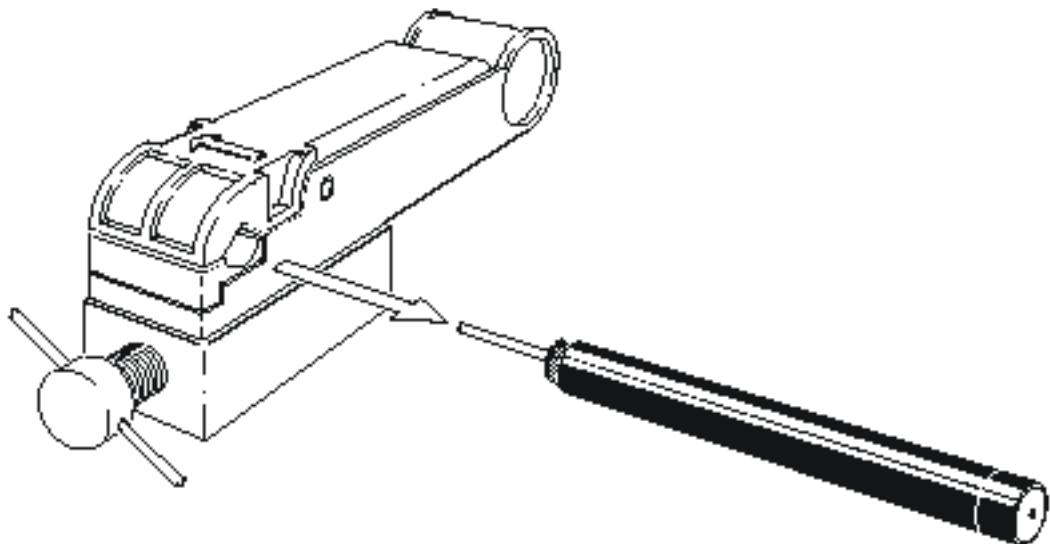
2. Insert the cable into the stripper/activator tool until the end of the cable is flush with the end of the tool. The SCSA-596 tool has a stop that helps position the cable. The arrow on the tool shows which way to insert the cable; see [Figure 30](#).



**Figure 30 – Inserting the cable in stripper/activator tool**

3. Rotate the tool around the cable several times in one direction. Do not rotate the cable.
4. Grasp the front of the tool firmly and pull the cable from the tool to expose the braided shielding and the center conductor; see [Figure 31](#).

Use a fingernail to remove any dielectric material that may be sticking to the center conductor. Do not use a knife or the conductor will be scratched.



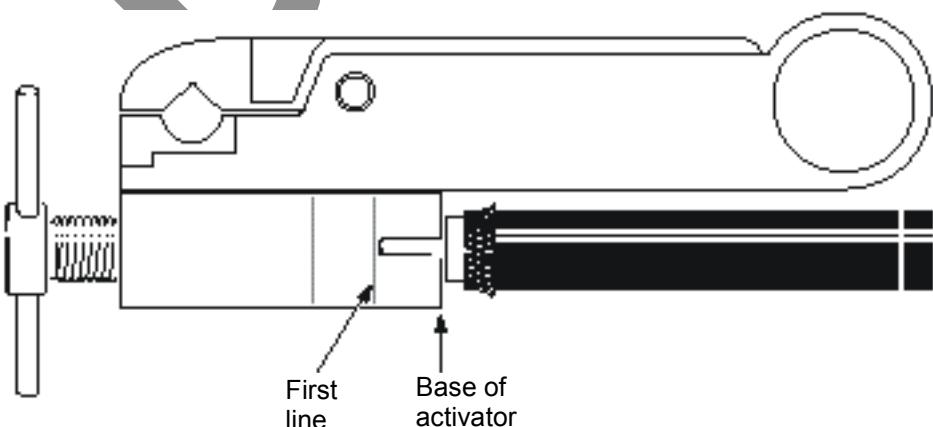
**Figure 31 – Exposing the shield and center conductor**

5. Pull the braided shielding back over the jacket and inspect the exposed end. Ensure that it is clean (free of loose pieces of shielding).
6. Attach the Stirling connector.
  - To attach an SPP-6-0 or SPP-59-0 connector, carefully insert the cable into the connector until you feel the cable click into place. Do not try to remove the connector after it has been put on the cable.



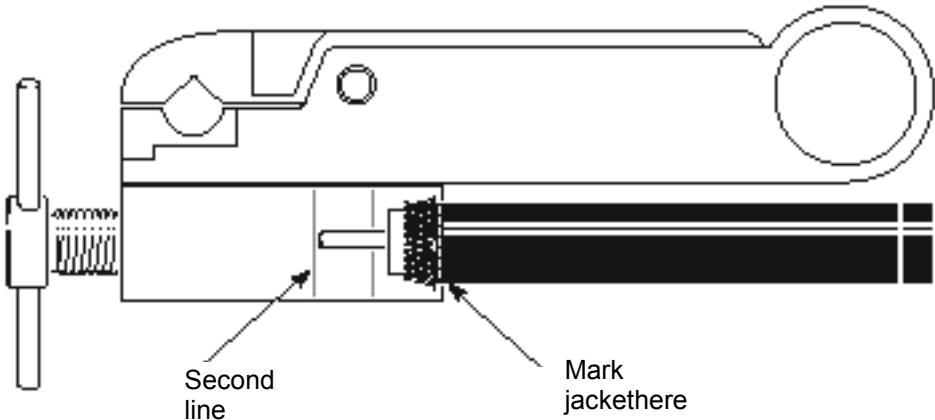
**Caution - A poor connection may result if the connector is removed from the cable once it has clicked into place**

- To attach an SPP-11-newbridge connector:
  - Position the dielectric at the base of the stripper/activator tool and measure the length of the center conductor against the first mark on the activator. *Figure 33* identifies the activator base and markings. If necessary, trim the conductor with circular wire cutters.



**Figure 32 – Measuring the center conductor**

- Position the center conductor at the second line on the stripper/activator tool and mark the cable jacket with your thumbnail at the base of the activator; see [Figure 33](#).



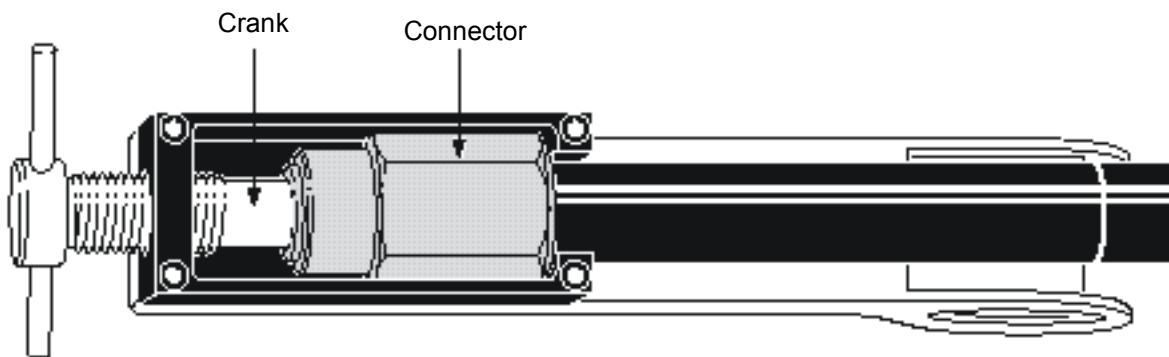
**Figure 33 – Measuring and marking the 5916 cable**

- Carefully place the connector on the cable and push the connector until it meets the thumbnail mark. If the connector is pushed too far onto the cable, it may not properly connect to its mate connector.



**Caution - A poor connection may result if the connector is removed from the cable once it has been pushed onto the cable.**

- Remove the connector cap and insert the connector into the activator tool (the center conductor fits into the hole in the crank). Turn the handle to tighten the activator until it stops, then back off the activator and remove the connector; see [Figure 34](#).



**Figure 34 – Fitting the connector**

- Check the installation by pulling on the connector. The connector should not come off.

If the connector is not being connected immediately, put the cap back on it.

# Filotex®

## Coaxial cable 75Ω

### PRODUCT REFERENCES

FILOTEX ref. : **ET 2PA 981**

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### CONSTITUTION

- 1 1.02 +/- 0.1 mm bare copper inner conductor
- 2 Cellular polyolefin insulation  $\varnothing = 4.60 +/- 0.1$  mm
- 3 Aluminium/PET/Aluminium tape
- 4 Tinned copper braid (filling factor  $\geq 60\%$ ).
- 5 LSZH ivory jacket  $\varnothing = 7.15 +_- 0.15$  mm

Weight : 58 Kg/Km

### Main applications

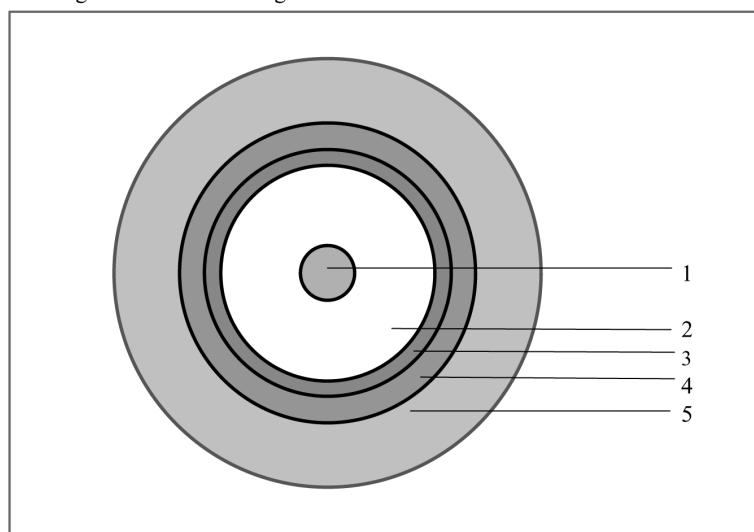
- Drop coaxial cable for indoor/outdoor applications.

### Electrical values

- Characteristic impedance : 75Ω
- Nominal capacitance : 55.5 pF/m
- Relative velocity of propagation : 82 %
- Dielectric strength : 1.5 Kv
- Jacket strength : 3.0 Kv
- DC loop resistance at 20 degrees : 38.5Ω/km
- Attenuation at 50 MHz : < 4.72 dB/100 m
  - 300 MHz : < 11.10 dB/100 m
  - 450 MHz : < 13.70 dB/100 m
  - 600 MHz : < 16 dB/100 m
  - 860 MHz : < 19.50 dB/100 m
  - 1000 MHz : < 21.10 dB/100 m
  - 2000 MHz : < 32.40 dB/100 m
- Screening attenuation from 100 to 1000 MHz :  $\geq 85$  dB according to IEC1196-1§12-4.
- Structural return loss : 30 to 450 MHz : > 20 dB
  - 450 to 600 MHz : > 18 dB
  - 600 to 1000 MHz : > 15 dB
  - 1000 to 2000 MHz : > 12 dB
- Tolerance : 3 peaks at -4 dB in each bandwidth

### Physical characteristics

- Maximum pulling strength : 34 daN
- Minimum bending radius for one single bend : 40 mm
  - for 10 bends : 80 mm
- Weathering resistance according to NFC 20 540
- Resistance to propagation according to IEC 332-3 but with a reduced volume of flammable material (0.5l instead of 1.5l)
- Smoke emission according to IEC 1034-2
- Halogen content according to IEC 754-1



Information subject to change without notice.

## Appendix 4 – Correspondence between commercial codes and industrial codes relating to the TS

Installation item	Commercial code	Industrial code	Comments
<b>7390 NC - commercial NT</b> NT unit			
NCA 001 (2 Eth + 2 G703) 220V	9900NCA001+ 9900SWA001	3CC 10329 AAxx	without power cable
NGA 001 (2 Eth + G703) 48V	9900NGA001+ 9900SWA001	3CC 10329 BCxx	With cable 48V
NGA 004 (2 Eth + 2G703, LEMO) 48V	9900NGA004+ 9900SWA001	3CC 10329 BFxx	With cable 48V
NCA 002 (2 Eth + 1G703 + X21) 220V	9900NCA002+ 9900SWA001	3CC 10329 ABxx	without power cable
NCD 001 (2 Eth) 220V	9900NCD001+ 9900SWA001	3CC 10329 ACxx	without power cable
NCE 001 (2 Eth + 2 T1 ANSI) 220V	9900NCE001+ 9900SWA001	3CC 10329 AExx	without power cable
<b>7390 NC - commercial NT</b> NT Lite unit			
NCG 001 (1 Eth + 1 T1 ANSI) 220V	9900NCG001+ 9900SWA001	3DG 55004 ADxx	without power cable
NCF 001 (1 Eth + 1E1 (G703)) 220V	9900NCF001+ 9900SWA001	3DG 55004 AAxx	without power cable
24-31 GHz X-Pol RT With 30cm integrated antenna	9900 OTA 001	90-6626-01	CDN-AB
24-31 GHz X-Pol RT With 30cm integrated antenna	9900 OTA 001	90-6626-02	US-A
24-31 GHz X-Pol RT With 30cm integrated antenna	9900 OTA 001	90-6626-03	US-B
24-31 GHz X-Pol RT With 30cm integrated antenna	9900 OTA 001	90-6626-05	CDN-F
24-31 GHz X-Pol RT With 30cm integrated antenna	9900 OTA 001	90-6626-09	CDN-C
38 GHz X-Pol RT With 30cm integrated antenna	9900 OTV 001	90-7164-01	38G-1

Installation item	Commercial code	Industrial code	Comments
<b>IGAU</b>			
I GAU 5dB	9900 XTX 006	90-8709-02	
I GAU 7dB	9900 XTX 007	90-8709-03	
I GAU 9dB	9900 XTX 008	90-8709-04	
I GAU 11dB	9900 XTX 009	90-8709-05	

**DRAFT**

## Appendix 5 – List of abbreviations

MNEMONIC	ENGLISH	MNEMONIC	ENGLISH
AAL	ATM Adaptation Layer	IBS	Intermediate frequency Base Station
AIS	Alarm Indication Signal	ICS	Identifier Change Status
AL	Alarm	I <sup>2</sup> C or IIC	Inter Integrated Circuit
AMD	ATM Modulator Demodulator	ID	IDentifier
AMTR	Antenna Misalignment Transition Radius	IEC	International Electrotechnical Commission
ANT	ATM Network Termination	IM	Information Model
ASAP	Alarm Severity Assignment Profile	IP	Internet Protocol
ATM	Asynchronous Transfer Mode	ISDN	Integrated Services Digital Network
AT	Attend alarm on LT	ITR	IGAU Transition Radius
AVC	Attribute Value Change	ITU	International Telecommunication Union
BER	Bit Error Rate	LAIS	Line Alarm Indication Signal
BNC	Bayonet-locking Connector	LAN	Local Area Network
BS	Base Station	LED	Light Emitting Diode
CBR	Constant Bite Rate	LMDS	Local Multipoint Distribution Service
CCIR	International radio consultative comitee	LMFA	Loss of MultiFrame Alignment
CEPT	Conference of European Post and Telecommunications administrations	LOF	Loss Of Frame
CPE	Customer Premises Equipment	LOP	Loss Of Pointer
CPL	Coupler	LOPC	Loss Of Polling Cell
CRC	Cyclic Redundancy Check	LORF	Loss Of Radio Frame
DBS	Digital Base Station	LOS	Loss Of Signal
EMC	ElectroMagnetic Compatibility	LRDI	Line Remote Defect Indicator
EPROM	Electronically Programmable Read-Only Memory	LT	Local Terminal
ETSI	European Telecommunications Standards Institute	MAC	Medium Access Control
ETH	Ethernet	Mbps	Mega Bit Per Second
FAS	Frame Alignment Signal	MIB	Management Information Base
FEC	Forward Error Correction	MMI	Man Machine Interface
HDB3	High Density Binary 3 code (3rd order)	MSC	Message Sequence Chart
		MUX	Multiplexer
		NE	Network Element

MNEMONIC	ENGLISH	MNEMONIC	ENGLISH
NFS	Network File System	TDM	Time Division Multiplex
NIT	Network Installation Tool	TE	Transaction End
NRZ	Non return to zero	TNT	TDM Network Termination
NT	Network Terminal	TS	Terminal Station
OC	Object Creation	UNI	User Network Interface
OD	Object Deletion	VPI	Virtual Path Identifier
OOF	Out Of Frame	VCI	Virtual Channel Identifier
OS	Operation System	WAN	Wide Area Network
PAIS	Path Alarm Indication Signal	IGAU	In line Gain Adjustement Unit
PC	Personal Computer	X-Pol RT	Cross Polarized Radio Terminal
PCR	Peak Cell Rate		
PDH	Plesiochronous Digital Hierarchy		
PLL	Phase Locked Loop		
PSU	Power Supply Unit		
PVC	Permanent Virtual Circuit		
QAM	Quadrature amplitude Modulation		
RAI	Remote Alarm Indicator		
X-Pol RBS	Cross-Polarized Radio Base Station		
RDI	Remote Defect Indication		
REI	Remote Error Indication		
RF	Radio Frequency		
RIT	Radio Installation Tool		
RT	Radio Terminal		
RSL	Received Signal Level		
SC	State Change		
SDH	Synchronous Digital Hierarchy		
SMD	Surface Mounted Device		
SNMP	Simple Network Management Protocol		
SNTP	Simple Network Time Protocol		
STP	Shielded Twisted Pair		
TAC	Technical Assistance Center		
TCP	Transmission Control Protocol		

END OF DOCUMENT